REMARKS/ARGUMENTS

Claims 21-40 are pending in this Application

In the Office Action, claims 21-31 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Claims 21-26 and 28-40 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,459,439 to Ahlquist, Jr. et al. (hereinafter "Ahlquist"). Claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ahlquist.

Claim Rejections Under 35 U.S. C. § 102(e)

Applicant respectfully traverses the rejections to claims 21-26 and 28-40 and requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(e) based on Ahlquist. The Office Action alleges that Ahlquist teaches or suggests all of the claimed limitations of the corresponding claims. To anticipate a pending claim, a prior art reference must provide, either expressly or inherently, each and every limitation of the pending claim. (M.P.E.P. § 2131).

In light of the above-recited requirements and the discussion below, Applicant respectfully submits that Ahlquist fails to disclose at least one of the claimed limitations recited in each of the corresponding claims.

Claim 21

Claim 21 recites:

A computer-implemented method of generating a graphical warp through transformation of an undeformed model to a deformed model, the method comprising:

receiving information specifying the undeformed model;

receiving a set of feature specifications, each feature specification comprising a source feature and a target feature;

receiving, independent of the set of feature specifications, a set of transformations for mapping the source feature to the target feature in each feature specification in the set of feature specifications;

receiving a set of strength fields defined over the undeformed model for scaling the magnitude of transformations in the set of transformations to generate a set of scaled transformations;

receiving, independent of the set of strength fields, a set of weighting fields defined over the undeformed model for determining the relative influence of the set of scaled transformations; and generating the deformed model using a graphical warp through transformation of the undeformed model to the deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model.

The method recited in claim 21 provides a generalized flexible solution for generating graphical warps by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model. As recited above, the set of feature specifications and the set of transformations may be independently received. Further, the set of strength fields and the set of weighting fields are decoupled, and may be separately and independently received. By allowing the set of feature specifications, the set of transformations, the set of strength fields, and the set of weighting fields to be received in the manner recited above, the deformed model is generated by taking all of these into consideration. As a result of which an infinite number of deformations may be used on any undeformed model. The method recited in claim 21 can provide a warp designer the flexibility to modulate and blend transformations of a model in a generalized and flexible process for performing any number of deformations.

Applicant respectfully submits that Ahlquist fails to teach or suggest the method recited in claim 21. As discussed further below, no single tool in Ahlquist is capable of applying a set of transformations, a set of strength fields, and a set of weighting fields to an undeformed model as recited above. Moreover, none of the tools disclosed in Ahlquist, either individually or in combination, provide a graphical warp as resulting from the method of claim 21 through transformation of an undeformed model to a deformed model by taking into consideration a set of transformations, a set of strength fields, and a set of weighting fields as recited in claim 21.

Ahlquist discloses a set of tools for converting a path representing a graphical object into a plurality of line segments. (Ahlquist: Abstract). Accordingly, the teachings of Ahlquist are limited to the reshaping of paths, without respect to control points. (Ahlquist: Abstract). In Ahlquist, a "pull tool" is disclosed that allows a user to select a point on a path, and pull the selected point to new location to deform the path. Additionally, Ahlquist discloses a "push tool" that allows a user to push or displace segments on a path to deform the path based on

the shape of the <u>push tool</u>. Finally, Ahlquist discloses an "<u>area tool</u>" that modifies segments of a path covered by the <u>area tool</u> to deform the path. (Ahlquist: Abstract).

In the Office Action, the Examiner makes the following associations between features recited in claim 21 and alleged teachings of Ahlquist:

- receiving a feature specification ← → selecting a location on a path using the <u>pull tool</u> that is pulled to a desired location
- receiving a set of transformations ← → selecting a transfer function (i.e., step function, cosine function, etc.) for the <u>pull tool</u>, the <u>push tool</u>, and the <u>area tool</u>
- receiving a set of strength fields ← → specifying a <u>length</u> parameter associated with the <u>pull tool</u>
- receiving a set of weighting fields ← → specifying a <u>strength</u> parameter associated with the <u>area tool</u>

Applicant respectfully submits that Ahlquist's disclosure is limited to a path that represents an object. Ahlquist fails to teach or suggest a method for a graphical warp through transformation of an undeformed model to a deformed model as recited in claim 21, where as a result an infinite number of deformations may be used on any undeformed model. As discussed further below, no single tool discussed in Ahlquist, either individually or in combination with another tool, generates transformation as recited in claim 21 providing a generalized and flexible method for performing any number of deformations as the features recited in claim 21. Applicant further respectfully submits, as discussed below, that none of the tools of Ahlquist provide a warp designer the flexibility to modulate and blend transformations by applying a set of transformations, a set of strength fields, and a set of weighting fields as recited in claim 21. Accordingly, Applicant respectfully submits that Ahlquist fails to teach or suggest receiving a set of feature specifications, a set of transformations, a set of strength fields, and a set of weighting fields, and generating a deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields as recited in claim 21.

Push tool and Area tool of Ahlquist

Applicant respectfully submits that Ahlquist's disclosure of the <u>push tool</u> and the <u>area or region tool</u> of Ahlquist fails to teach or suggest each and every feature recited in claim 21. For example, claim 21 recites "receiving a set of feature specifications, each feature specification comprising a source feature and a target feature."

In regard to the <u>push tool</u> of Ahlquist, Ahlquist discloses that the <u>push tool</u> merely impacts a path, and moves the path in accordance with the profile of the <u>push tool</u> to a depth desired by the user. (Ahlquist: Col. 6, lines 60-65). In Ahlquist, new destination locations <u>are calculated</u> from source points on the original path in response to the shape of the <u>push tool</u> and the depth of the tool into the path provided by movement of the user. (Ahlquist: Col. 7, lines 5-10). In regard to the <u>area tool</u> of Ahlquist, Ahlquist discloses that portions of a path covered by the <u>area tool</u> are reshaped. (Ahlquist: Col. 7, lines 45-50). In Ahlquist, new destination locations <u>are again calculated</u> from source points on the original path based movement of the tool provided by the user and a transfer function. In Ahlquist, the transfer function determines what percentage of the user's movement to transfer to each destination point. (Ahlquist: Col. 9, lines 38-44).

Applicant respectfully submits that Ahlquist's disclosure of the <u>push tool</u> and the <u>area tool</u> of Ahlquist, and their accompanying usage, does not teach or suggest receiving a feature specification that includes a source feature and a target feature as recited in claim 21. As discussed above, using the <u>push tool</u> of Ahlquist, the <u>destination points are merely calculated from source points</u> on the path which are displaced by the <u>push tool</u> as a function of the tools shape the movement of the user. Furthermore, using an <u>area tool</u> of Ahlquist, <u>the destination points are merely calculated from the source points in response to movement of the <u>area tool</u> and a transfer function associated with the tool. Calculating destination points from source points along a path as in Ahlquist does not teach or suggest receiving a feature specification that includes both a source feature and a target feature as recited in claim 21.</u>

Pull tool of Ahlquist

Applicant further respectfully submit that Ahlquist's disclosure of the <u>pull tool</u> of Ahlquist fails to teach or suggest each and every feature recited in claim 21. For example, claim

21 further recites the feature of "receiving, independent of the set of feature specifications, a set of transformations for mapping the source feature to the target feature in each feature specification in the set of feature specifications."

Ahlquist discloses that a user selects a point on a path, and moves the selected point by dragging the selected point to a new destination location. (Ahlquist: Col. 5, lines 10-13). In Ahlquist, as the user moves the <u>pull tool</u>, new destination locations <u>are calculated</u> from source points on the original path according to a pre-determined curve or formula. (Ahlquist: Col. 26-31).

Applicant respectfully submit that Ahlquist's disclosure of the <u>pull tool</u>, and its accompanying usage, does not teach or suggest receiving a set of transformations for mapping a source feature to a target feature in each feature specification in the set of feature specifications as recited in claim 21. As discussed above, a user in Ahlquist manually <u>moves</u> the selected point on the path to the new destination location. Manually moving a selected point to a new destination by a user as in Ahlquist is substantially different from <u>receiving a transformation for mapping a source feature to a target feature in each feature specification independently of <u>receiving a source feature and target feature in the feature specification</u> as recited in claim 21.</u>

In another example, claim 21 recites "receiving a set of feature specifications, each feature specification comprising a source feature and a target feature." As discussed above, Ahlquist discloses that <u>destination points for the path using the pull tool are calculated on either side of the point</u> selected by the user using the pre-determined curve or formula. As discussed previously in regard to the <u>push tool</u> and the <u>area tool</u> of Ahlquist, calculating destination points from source points along a path as in Ahlquist is substantially different from receiving a feature specification that includes a source feature and a target feature as recited in claim 21.

Stength fields and Weights

Furthermore, Applicant respectfully submit that Ahlquist's disclosure of the <u>pull</u> tool, the <u>push tool</u>, and the <u>area tool</u> of Ahlquist, and their accompanying usage, fails to teach or suggest the features of "receiving a set of strength fields defined over the undeformed model for scaling the magnitude of transformations in the set of transformations to generate a set of scaled

transformations and "receiving, independent of the set of strength fields, a set of weighting fields defined over the undeformed model for determining the relative influence of the set of scaled transformations" as recited in claim 21.

As recited in claim 21, a set of strength fields defined over the undeformed model is received for scaling the magnitude of transformations to generate a set of scaled transformation. As further recited in claim 21, a set of weighting fields defined over the undeformed model is received for determining the relative influence of the set of scaled transformations.

Ahlquist merely states that one or more properties or parameters of the <u>pull tool</u>, the <u>push tool</u>, and the <u>area tool</u> may be modified to change the way the tools behave when impacting a path. (Ahlquist: Summary; Col. 6, lines 5-10). These parameters of Ahlquist include:

- <u>Pull tool</u> of Ahlquist → <u>length</u>
 - → pressure
- Push tool of Ahlquist \rightarrow size
- Area tool of Ahlquist → size
 - → <u>strength</u>
 - → <u>size pressure</u>
 - → strength pressure

However, the parameters of Ahlquist that may be changed by a user at any time apply to specific variables of the transfer functions associated with each of the <u>pull tool</u>, the <u>push tool</u>, and the <u>area tool</u> of Ahlquist. (Ahlquist: Summary; Col. 6, lines 5-10). As discussed further below, receiving values to manipulate parameters of a transfer function associated with a single tool as in Ahlquist simply does not teach or suggest receiving a set of strength fields defined over the undeformed model or receiving a set of weighting fields defined over the undeformed model as recited in claim 21.

In regard to the <u>pull tool</u>, Ahlquist discloses that a user can set a <u>length</u> parameter which represents the distance along either side of a selected point on a path that will be affected by the <u>pull tool</u>. (Ahlquist: Col. 5, lines 21-23; Col. 5, lines 32-47). Additionally, in Ahlquist,

the <u>length</u> parameter is a variable of the transfer function. (Ahlquist: Col. 6, *length* in predetermined formula of lines 5-10). However, a user merely adjusting a length parameter of a transfer function in Ahlquist does not teach or suggest <u>receiving a set of strength fields defined</u> over the undeformed model for scaling the magnitude of transformations to generate a set of <u>scaled transformation</u> as recited in claim 21. Moreover, a user simply adjusting a length parameter of a transfer function in Ahlquist does not teach or suggest <u>receiving</u>, independent of the set of strength fields, a set of weighting fields defined over the undeformed model for <u>determining the relative influence of the set of scaled transformations</u>.

The <u>length</u> parameter of Ahlquist merely provides a <u>single distance used by a single transfer function along a portion of a path on either side of a point selected by a user, which is substantially different from a set of strength fields defined over the undeformed model for scaling the magnitude of transformations to generate a set of scaled transformation, and a set of weighting fields defined over the undeformed model for determining the relative influence of the set of scaled transformations as recited in claim 21.</u>

Additionally, Ahlquist discloses that a user can set a <u>pressure</u> parameter assocaited with the <u>pull tool</u> of Ahlquist. Ahlquist discloses that the <u>pressure</u> parameter is merely <u>added to the length parameter</u>. (Ahlquist: Col. 6, lines 25-35). Merely adding values to the <u>length</u> variable of a transfer function in Ahlquist is substantially different from receiving a set of strength fields and receiving a set of weighting fields defined over the undeformed model for as recited in claim 21.

In regard to the <u>push tool</u>, Ahlquist discloses that a user may set a <u>size</u> parameter of the <u>push tool</u>. (Ahlquist: Col. 6, lines 49-59). As the <u>size</u> parameter is increased, the size of the tool is increased. Merely adjusting values to manipulate the size of the <u>push tool</u> in Ahlquist does not teach or suggest receiving a set of strength fields and receiving a set of weighting fields as recited in claim 21.

In regard to the <u>area tool</u>, Ahlquist discloses that a user may set a <u>size</u> parameter, a <u>strength</u> parameter, a <u>size pressure</u> parameter, and a <u>strength pressure</u> parameter for the <u>area tool</u>. (Ahlquist: FIG. 4C). Ahlquist discloses that the <u>strength parameter</u> of the area affects the <u>size</u> parameter of the <u>area tool</u>. (Ahlquist: Col. 8, lines 16-20). Ahlquist further depicts the <u>size</u>

pressure parameter and the <u>strength pressure</u> parameter to be 0 in all of the figures, without any general associated discussion. However, Ahlquist likens the parameters of the <u>area tool</u> to the parameters of the <u>pull tool</u>. (Ahlquist: Col. 4, lines 9-11). Accordingly, the <u>size pressure</u> parameter and the <u>strength pressure</u> parameter of the <u>area tool</u> are analogous to the <u>length pressure</u> parameter of the <u>pull tool</u>. This means that the <u>size pressure</u> parameter and the <u>strength pressure</u> parameters of the <u>area tool</u> of Ahlquist are merely values added to other variables of the transfer function associated with the <u>area tool</u>. As discussed above, merely adjusting values to manipulate variables of the transfer function with a tool in Ahlquist does not teach or suggest receiving a set of strength fields and receiving a set of weighting fields defined over the <u>undeformed model</u> as recited in claim 21.

Accordingly, in each of the tools of Ahlquist, a user merely manipulates variables that are components of a transfer function associated with the specific tool. Merely manipulating the variables of a transfer function as discussed in Ahlquist does not teach or suggest that a set of strength fields defined over the undeformed model is received for scaling the magnitude of transformations in the set of transformations to generate a set of scaled transformations as recited in claim 21. Furthermore, merely manipulating the variables of a transfer function in Ahlquist does not teach or suggest that independent of the set of strength fields, a set of weighting fields defined over the undeformed model is received for determining the relative influence of the set of scaled transformations as recited in claim 21.

Tools of Ahlquist

Applicant respectfully submit that Ahlquist fails to teach or suggest each and every claim limitation of claim 21. The tools in Ahlquist are limited to a specific type of deformation. Applicant further submit that Ahlquist fails to generate a deformed model using a graphical warp through transformation of the undeformed model to the deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model as recited in claim 21. In light of the above, Applicant respectfully submit that claim 21 is allowable over the cited references.

Claim 30

The Office Action rejected claim 30 under a similar rationale as claim 21. The Office Action further alleges that the <u>pressure</u> parameter and the <u>strength</u> parameter of Ahlquist disclose the parameter set recited in claim 30. Applicant respectfully disagree.

For example, claim 30 recites the features of "receiving a parameter set specifying a warp" and "determining, based upon the parameter set, a set of transformations, a set of strength fields, and a set of weighting fields." As discussed above, the <u>length</u>, <u>pressure</u>, <u>size</u>, <u>strength</u>, <u>size pressure</u>, and <u>strength pressure</u> parameters of Ahlquist are related to variables or components of a transfer function associated with a particular tool. Applicant submit that receiving a value for a variable of a transfer function is substantially different from receiving a parameter set specifying a warp as recited in claim 30. Applicant further fail to see where the Examiner has identified teachings in Ahlquist where one ordinarily skilled in the art would understand adjusting a transfer function of a tool using the various parameters of Ahlquist to teach or suggest determining a set of transformations, a set of strength fields, and a set of weighting fields based upon a parameter set as recited in claim 30. As the parameters in Ahlquist merely adjust values of a transfer function, Applicant respectfully submit that such teachings are absent from Ahlquist.

Claims 22-40

Applicant submit that independent claims 30, 32, 34, 37, 39, and 40 are allowable for at least a similar rationale as discussed above for the allowability of claims 21 and 30, and others. Applicant submit that dependent claims 22-29, 31, 33, 35 and 36, and 38 that depend directly and/or indirectly from the independent claims 21, 30, 32, 34, and 37 respectively, are also allowable for at least a similar rationale as discussed above for the allowability of the independent claims. Applicant further submit that the dependent claims recite additional features that make the dependent claims allowable for additional reasons.

Claim Rejections Under 35 U.S. C. § 103(a)

Applicant respectfully traverse the rejections to claim 27 and request reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) based on Ahlquist for at least a similar rationale as discussed above for the allowability of claim 1, and others.

Claim Rejections Under 35 U.S. C. § 101

Applicant respectfully traverse the rejections to claims 21-31 and request reconsideration and withdrawal of the rejections under 35 U.S.C. § 101. The Office Action alleges that claims 21-31 are directed to non-statutory subject matter, because claims 21-31 allegedly consist solely of "data manipulation" where no tangible result is produced. The Office Action further suggests displaying the plot on the screen produces a tangible result. Applicant respectfully disagrees.

Applicant respectfully submits that the Examiner has misapplied the November 2005 Guidelines for Subject Matter Eligibility (hereinafter "the Guidelines") and the law. The Guidelines rely extensively on the language in the law promulgated by <u>State Street Bank & Trust Co. v. Signature Financial Group Inc.</u>, 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and <u>AT&T Corp. v. Excel Communications, Inc.</u>, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999).

Applicant submits that the subject matter of claims 21-31 provide a sufficiently "useful, concrete and tangible result" within the meaning of the law promulgated by <u>State Street</u> and <u>AT&T Corp. v. Excel.</u>

With regard to "tangible," the Guidelines state that "the claim must set forth a practical application of that §101 judicial exception to produce <u>a real-world result</u>." (Guidelines, p. 21) (Emphasis Added). The Guidelines cite <u>Corning v. Burden</u>, 56 U.S. (15 How.) 252, 268 (1854), in noting that "it is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted…" (Guidelines, p. 21-22).

Applicant respectfully submits that claims 21-31 produce a "real-world result." Claim 21 is a "method of generating a graphical warp through transformation of an undeformed model to a deformed model." The result of this method is the deformation of an undeformed model "using a graphical warp through transformation of the undeformed model to the deformed

model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model." The generation of the deformed model using a graphical warp through transformation of the undeformed model to the deformed model is a "real-world result," as it produces data with a beneficial result or effect, in this case deformed models that can be used in computer generated images, character animations, and medical imaging. Thus, Applicant respectfully submits the claims 21-31 achieve a "tangible result."

Applicant is at a loss to find any requirement in the Guidelines or the law to substantiate the Examiner's indication that displaying the plot on a screen would satisfy the requirement for a "useful, concrete and tangible result." The law does not state that a result must be output or displayed to a user to be a "real-world result." Patentability does not require visible or perceptible results.

Claims that do not recite an outputting or displaying step often accomplish a real-world result that is "useful, concrete and tangible." In many processes, the result is used by a subsequent process. By the Examiner's logic, any intermediate process would not provide a practical result since its output is not communicated to a user, but is instead provided to subsequent process. Moreover, many patentable methods, both for software and in other subject matters, produce results that are not perceptible to users without further assistance or processing. According to the Examiner's logic, only methods that produce results that are visible or otherwise perceptible to a user without any subsequent processing are patentable. Applicant respectfully submits that this position is clearly erroneous.

Moreover, the Guidelines state that "the claimed invention as a whole must be useful and accomplish a practical application." (Guidelines, p.4) (Emphasis Added). The Guidelines state that "in determining whether the claim is for a 'practical application,' the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is 'useful, tangible and concrete." (Guidelines, p. 20) (Emphasis Added). To this end, the Guidelines state that "the focus of the inquiry is whether the claim, considered as a whole, constitutes 'a practical application of an abstract idea." (Guidelines, p. 37) (Emphasis Added). "In determining whether the claim is for a 'practical application,' the focus is not on whether the steps taken to

achieve a particular result are useful, tangible and concrete, but rather the final result is 'useful, tangible, and concrete.'" (Guidelines, p. 38).

Applicant respectfully submits that the Examiner's focus on the need for a specific step that outputs or displays a result contradicts the explicit direction in the Guidelines and law. The Guidelines state that the Examiner should analyze the claim as a whole, rather than a particular element, to determine whether the claim is patentable subject matter. By making patentability contingent on the addition of a specific outputting or displaying step, the Examiner's inquiry is focused on an individual claim element, rather than the claim as a whole.

The Guidelines cited by the Examiner rely extensively on the language in <u>State</u>

<u>Street Bank</u> and <u>AT&T</u>. In determining whether the present claims are patentable subject matter,

Applicant believes it would helpful to review the claims at issue in <u>State Street</u> and <u>AT&T Corp.</u>

<u>v. Excel</u>. Applicant notes that these examples are provided to clarify the scope of 35 U.S.C. §

101 and are not intended to incorporate limitations or definitions of claim terms from either case into the present Application.

In State Street, the claim at issue recites:

- 1. A data processing system for managing a financial services configuration of a portfolio established as a partnership, each partner being one of a plurality of funds, comprising:
- (a) computer processor means for processing data;
- (b) storage means for storing data on a storage medium;
- (c) first means for initializing the storage medium;
- (d) second means for processing data regarding assets in the portfolio and each of the funds from a previous day and data regarding increases or decreases in each of the funds, [sic, funds'] assets and for allocating the percentage share that each fund holds in the portfolio;

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- (e) third means for processing data regarding daily incremental income, expenses, and net realized gain or loss for the portfolio and for allocating such data among each fund;
- (f) fourth means for processing data regarding daily net unrealized gain or loss for the portfolio and for allocating such data among each fund; and
- (g) fifth means for processing data regarding aggregate year-end income, expenses, and capital gain or loss for the portfolio and each of the funds.

Applicant notes that the claim at issue in <u>State Street</u> does not recite any specific step for outputting or providing a result. Nonetheless, the Federal Circuit held that this claim is patentable because:

the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result' - a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades. State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. (Fed. Cir. 1998). (Emphasis Added).

The claim at issue in <u>AT&T Corp. v. Excel</u> recites:

A method for use in a telecommunications system in which interexchange calls initiated by each subscriber are automatically routed over the facilities of a particular one of a plurality of interexchange carriers associated with that subscriber, said method comprising the steps of:

generating a message record for an interexchange call between an originating subscriber and a terminating subscriber, and

including, in said message record, a primary interexchange carrier (PIC) indicator having a value which is a function of whether or not the interexchange carrier associated with said terminating subscriber is a predetermined one of said interexchange carriers.

Applicant notes that the claim at issue in <u>AT&T</u> also does not recite any specific step for outputting or providing a result. Nonetheless, the Federal Circuit held that this claim is patentable because:

AT&T does not claim the Boolean principle as such or attempt to forestall its use in any other application. It is clear from the written description of the '184 patent that AT & T is only claiming a process that uses the Boolean principle in order to determine the value of the PIC indicator. The PIC indicator represents information about the call recipient's PIC, a useful, non-abstract result that facilitates differential billing of long-distance calls made by an IXC's subscriber. Because the claimed process applies the Boolean principle to produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle, on its face the claimed process comfortably falls within the scope of Section 101. AT&T, 172 F.3d at 1358, 50 USPQ2d at 1452 (Emphasis Added).

Thus, even though the claims at issue in both <u>State Street</u> and <u>AT&T</u> do not recite explicit steps of providing results to a user, both claims are directed to patentable subject matter because the claims as a whole relate to a "useful, concrete and tangible result." In <u>State Street</u>, the final price of a share is a tangible (i.e. real-world) result because the share price is data that can be used in buying, selling, and accounting for the value of a financial instrument. In <u>AT&T</u>, the long distance call billing indicator is a tangible result because the billing indicator is data that determines the amount of money charged to long-distance telephone call customers.

Similarly, the Applicant's claims 21-31 relate to a "useful, concrete and tangible result" because they are directed to a "method of generating a graphical warp through transformation of an undeformed model to a deformed model." The result of this method is "generating the deformed model using a graphical warp through transformation of the

undeformed model to the deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model."

Like a final share price or a long-distance call billing indicator, "generating the deformed model using a graphical warp" is a useful, concrete and tangible result, because the data produced by "generating the deformed model using a graphical warp" can be used in medical imaging and to pose character models for computer graphics images and animations. Thus, the results of claims 21-31 are "useful, concrete and tangible."

Accordingly, Applicant respectfully submit that claims 21-31 are directed to statutory subject matter as useful, concrete, and tangible results are provided as described above. Thus, Applicant respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. § 101.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

/Sean F. Parmenter/ Sean F. Parmenter Reg. No. 53,437

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, Eighth Floor San Francisco, California 94111-3834 Tel: 650-326-2400

Fax: 650-326-2400

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